State of Florida Wetland Delineation and Permitting

Jennifer K. Smith
Program Administrator
Department of Environmental Protection

Ron Peekstok
Lead Environmental Analyst
South Florida Water Management District

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Chapter 62-340, F.A.C.
Wetlands Delineation

Technical Delineation Procedures (Methodology)

Ch. 62-340.400 Selection of Vegetative Stratum

Ch. 62-340.300(2)(a)(b)(c)(d)

Ch. 62-340.300(3)(a) Altered Sites

What is a Wetland?

62-340.200 Definitions (19)

- "Wetlands," as defined in subsection 373.019(17), F.S., ***means those areas that are inundated or saturated by surface water or ground water at a frequency and a duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils.***

- Soils present in wetlands generally are classified as hydric or alluvial, or possess characteristics that are associated with **reducing soil conditions**. The prevalent vegetation in wetlands generally consists of facultative wet or obligate hydrophytic macrophytes that are typically adapted to areas having soil conditions described above.

- These species, due to morphological, physiological, or reproductive adaptations, have the ability to grow, reproduce or persist in aquatic environments or anaerobic soil conditions.

What is a Wetland?
62-340.200 Definitions (19)

- Florida wetlands generally include swamps, marshes, bayheads, bogs, cypress domes and strands, sloughs, wet prairies, riverine swamps and marshes, hydric seepage slopes, tidal marshes, mangrove swamps and other similar areas.

- Florida wetlands generally do not include longleaf or slash pine flatwoods with an understory dominated by saw palmetto.

First, according to 62-340.300(1), we can simply use a direct application of the wetland definition, as stated in 62-340.200(19).

DELINEATION OF THE LANDWARD EXTENT OF WETLANDS AND SURFACE WATERS
62-340.100 Intent.

- (1) This rule's intent is to provide a unified statewide methodology for the delineation of the landward extent of wetlands and surface waters to satisfy the mandate of Section 373.421, F.S.

- The landward extent of wetlands *means the total extent of area under the wetland regulatory jurisdictions of the state* which shall be determined by the *dominance of plant species, soils and other hydrologic evidence indicative of regular and periodic inundation or saturation.*

- In all cases, attempts shall be made to locate the landward extent of wetlands visually by on site inspection, or aerial photo interpretation in combination with ground truthing, without quantitative sampling.

Isolated vs. Contiguous Wetlands

- Isolated wetlands are depressions which hold water on a temporary basis (hydroperiod) and are not connected to a permanent waterbody.

- Contiguous wetlands are connected to the landward extent of another permanent waterbody that is either natural or manmade.

- Extraordinary events such as tropical storms which cause connectivity due to excessive precipitation beyond the normal hydroperiod do not constitute a contiguous process.

Delineation Tools

- Vegetative Index – This is a list of most plant species which can be found in Florida wetlands.
- Hydric Soil Indicators
- Hydrologic Indicators
- Reasonable Scientific Judgment – Reasonable scientific judgment takes into account all available information and factors pertinent to the surficial hydrology of the area. Some important factors to consider when applying reasonable scientific judgment include moisture conditions, vegetation present, hydrologic alterations, landscape position, local knowledge, and climactic conditions.
  - It is the "*Ability to collect and analyze information using technical knowledge, personal skill, and experience.*"

Vegetative Index & Hydrologic Indicators

62-340.450 Vegetative Index

(1) Obligate Species (OBL)

(2) Facultative Wet Species (FACW)

(3) Facultative Species (FAC)

62-340.500 Hydrologic Indicators

- Algal Mats
- Aquatic Mosses & Liverworts

Hydrologic Indicators cont.

- Aquatic Plants
- Aufwuchs
- Drift lines & rafted debris
- Elevated lichen lines
- Evidence of aquatic fauna
- Hydrologic data
- Morphological plant adaptations
- Secondary Flow channels
- Sediment deposition
- Vegetated Tussocks or hummocks
- Water marks

Hydric Soil Indicators

For SANDY SOILS, 0-6 inches in depth:

- Dark Surface
- Organic Bodies
- Sandy Redox (oxidized rhizospheres)
- Matrix Stripping (polychromatic matrix)
- Stratified Layers
- Mucky Texture
- Muck
- Gleyed Matrix
- Sulfidic Smell

For LOAMY and CLAYEY textured soils, 0 – 12 inches in depth:

- Muck
- Mucky texture
- Gleyed matrix
- Depleted matrix
- Marl
- Iron & Manganese masses
- Umbric surface
- Sulfidic smell

Soil Features That Are Both Hydric Soil Indicators AND Hydrologic Indicators

- **Mucky mineral (2 in.)**
- **Gleyed Matrix**
- **Sulfidic Odor**
- **(N. FL) Muck (0.5 in.)**
- **(S. FL) Muck Presence**

Ch. 62-340.400
Selection of Appropriate Vegetative Stratum

- Dominance of plant species, as described in paragraphs 62-340.300(2)(a) and 62-340.300(2)(b), F.A.C., shall be determined in a plant stratum (canopy, subcanopy, or ground cover).
- The top stratum shall be used to determine dominance unless the top stratum, exclusive of facultative plants, constitutes less than 10 percent aerial extent, or unless reasonable scientific judgment establishes that the indicator status of the top stratum is not indicative of the hydrologic conditions on site.
- In such cases, the stratum most indicative of on site hydrologic conditions, considering the seasonal variability in the amount and distribution of rainfall, shall be used.

Ch. 62-340.400
Selection of Appropriate Vegetative Stratum

- The evidence concerning the presence or absence of regular and periodic inundation or saturation shall be based on in situ data. All facts and factors relating to the presence or absence of regular and periodic inundation or saturation shall be weighed in deciding whether the evidence supports shifting to a lower stratum.
- The presence of obligate, facultative wet, or upland plants in a lower stratum does not by itself constitute sufficient evidence to shift strata, but can be considered along with other physical data in establishing the weight of evidence necessary to shift to a lower stratum. The burden of proof shall be with the party asserting that a stratum other than the top stratum should be used to determine dominance.
- Facultative plants shall not be considered for purposes of determining appropriate strata or dominance.

Ch. 62-340.400
Selection of Appropriate Vegetative Stratum
Additional Considerations

- Canopy > 4″ dbh
- Subcanopy 1″-4″ dbh
- Ground cover < 1″ dbh
- There must be a minimum of 10% aerial coverage for canopy & subcanopy strata to be considered for the A & B tests.
- Aerial extent is that percentage of ground area that a plant or stratum has coverage

Ch. 62-340.300(2)(a)
The A Test

(a) Those areas where the aerial extent of obligate* plants in the *appropriate vegetative stratum* is greater than the aerial extent of all upland plants in that stratum, and either:

1. The substrate is composed of hydric soils or riverwash, as identified using standard U.S.D.A.-S.C.S. practices for Florida, including the approved hydric soil indicators, except where the hydric soil is disturbed by a non-hydrological mechanical mixing of the upper soil profile and the regulating agency establishes through data or evidence that hydric soil indicators would be present but for the disturbance;

2. The substrate is non-soil, rock outcrop-soil complex, or the substrate is located within an artificially created wetland area; or

3. One or more of the hydrologic indicators listed in Rule 62-340.500, F.A.C., are present and reasonable scientific judgment indicates that inundation or saturation is present sufficient to meet the wetland definition of subsection 62-340.200(19), F.A.C.

(more obligate wetland plants than upland plants +
either Hydric Soils or Hydrologic Indicators)

Ch. 62-340.300(2)(b)
The B Test

(b) Those areas where the aerial extent of obligate or facultative wet plants*, or combinations thereof, *in the appropriate stratum* is equal to or greater than 80% of all the plants in that stratum, excluding facultative plants, and either:

1. The substrate is composed of hydric soils or riverwash, as identified using standard U.S.D.A.-S.C.S. practices for Florida, including the approved hydric soil indicators, except where the hydric soil is disturbed by a non-hydrologic mechanical mixing of the upper soil profile and the regulating agency establishes through data or evidence that hydric soil indicators would be present but for the disturbance;

2. The substrate is non-soil, rock outcrop-soil complex, or the substrate is located within an artificially created wetland area; or

3. One or more of the hydrologic indicators listed in Rule 62-340.500, F.A.C., are present and reasonable scientific judgment indicates that inundation or saturation is present sufficient to meet the wetland definition of subsection 62-340.200(19), F.A.C.

(80% or more obligate and facultative wetland plants + either Hydric Soils or Hydrologic Indicators)

Ch. 62-340.300(2)(c)
The C Test

(c) Those areas, other than pine flatwoods* and improved pastures, with undrained hydric soils which meet, in situ, at least one of the criteria listed below. A hydric soil is considered undrained unless reasonable scientific judgment indicates permanent artificial alterations to the on site hydrology have resulted in conditions which would not support the formation of hydric soils.

1. Soils per USDA Keys to Soil Taxonomy
2. Saline sands (salt flats-tidal flats)
3. Soils within a hydric mapping unit per USDA/SCS
4. For the purposes of this paragraph only, "pine flatwoods" means a plant community type in Florida occurring on flat terrain with soils which may experience a seasonal high water table near the surface. The canopy species consist of a monotypic or mixed forest of long leaf pine or slash pine. The subcanopy is typically sparse or absent. The ground cover is dominated by saw palmetto with areas of wire grass, gallberry, and other shrubs, grasses, and forbs, which are not obligate or facultative wet species

Ch. 62-340.300(2)(d)
*The D Test**

(d) Those areas where one or more of the hydrologic indicators listed in Rule 62-340.500, F.A.C., are present, and which have hydric soils, as identified using the U.S.D.A.-S.C.S. approved hydrologic indicators for Florida, and reasonable scientific judgment indicates that inundation or saturation is present sufficient to meet the wetland definition of subsection 62-340.200(19), F.A.C.

These areas shall not extend beyond the seasonal high water elevation.

- "Stand Alone D" Test Soil Indicators

1. A4- Hydrogen Sulfide
2. A7- 5 cm Mucky Mineral
3. A8- Muck Presence
4. A9- 1 cm Muck
5. F2- A Gleyed Matrix

(soils stand alone test must have <u>both</u> hydric soil and hydrologic indicators)

Ch. 62-340.300(3)(a)
The Altered Sites Test

(3)(a) *If the vegetation or soils of an upland or wetland area have been altered by natural or man-induced factors such that the boundary between wetlands and uplands cannot be delineated reliably by use of the methodology in subsection 62-340.300(2), F.A.C.,* as determined by the regulating agency, and the area has hydric soils or riverwash, as identified using standard U.S.D.A.- S.C.S. practices for Florida, including the approved hydric soil indicators, except where the hydric soil is disturbed by a non hydrologic mechanical mixing of the upper soil profile and the regulating agency establishes through data or evidence that hydric soil indicators would be present but for the disturbance, *then the most reliable available information shall be used with reasonable scientific judgment to determine where the methodology in subsection 62-340.300(2), F.A.C., would have delineated the boundary between wetlands and uplands.*

(i.e. aerial photographs, remaining vegetation, authoritative site-specific documents, topographical consistencies, etc.)

ERP-Environmental Resource Permitting

The Environmental Resource Permitting Program addresses dredging, filling, and construction in wetlands and other surface water, as well as stormwater and surface water management systems in uplands.

The program is designed to ensure that activities in uplands, wetlands and other surface waters do not degrade water quality or degrade habitat for aquatic or wetland dependent wildlife.

The ERP Program is implemented by both the DEP and WMD's

DEP

- Individual Single Family Residents
- Marinas not associated w/ other upland development
- Utilities
- Governmental dredging & other "in water" work
- Associated SSL Authorization w/ the above

WMDs

- Agriculture
- Residential and Commercial Developments
- Roads (FDOT)
- Associated SSL Authorization w/ the above

USACOE Operating Agreement with DEP & WMD

- Purpose: to coordinate permitting & compliance/enforcement programs concerning activities in wetlands & surface waters.
- Water Quality Certification
  - Section 404 Clean Water Act
- Coastal Zone Consistency Concurrence
  - Federally approved Coastal Management Program
  - FWC, DCA, DOS

Three Types of Authorization

- Regulatory
  - Environmental Rules
  - Exemptions, Permits, etc.
- Proprietary
  - State Lands Authorization
  - Activities on “Public Property”
- Federal
  - State Programatic General Permit
    - USACOE permit issued by the State

Regulatory Rules & Statutes

- Chapter 40E-4, F.A.C. (Surface Water Management)
- Chapter 62-341, F.A.C. (NGP)
- Basis of Review (adopted from SFWMD)
- 62-340, F.A.C. Wetland Delineation
- 62-345, F.A.C. Unified Mitigation Assessment Method (UMAM)
- 1996 Mangrove Trimming and Preservation Act
- Chapter 403, F.S. (Environmental Regulation)
- Chapter 373, F.S. (Water Resources)

Enforcement

ELRA- Environmental Litigation Reform Act
403.121, F.S. (violations less than acre)

Administrative Process

$1,000 less than .25 acres

$2,000 greater than .25 acres less than .5 acres

$3,000 greater than .5 and less than 1 acre

$5,000 contractor -wetland violations

Enforcement- Penalty Guidelines

Greater than one acre (Judicial/Circuit Court)

- Max $10,000 per day per violation

- Potential for harm: isolated or contiguous

  Waterbody Classification, permanency, habitat quality

- Extent of deviation: major (unpermittable), moderate (permittable with changes), minor (permittable no changes)